# List of Contents

## NUMBER 1


| | | |
|---|---|---|
| **M. Y. He** and **J. W. Hutchinson** | 1 | Surface crack subject to mixed mode loading |
| **Yih-Cherng Chiang** | 15 | On crack-wake debonding in fiber reinforced ceramics |
| **A. G. Varias** and **A. R. Massih** | 29 | Temperature and constraint effects on hydride fracture in zirconium alloys |
| **A. Khodadad Motarjemi, A. H. Kokabi, A. A. Ziaie, S. Manteghi** and **F. M. Burdekin** | 55 | Comparison of the stress intensity factor of *T* and cruciform welded joints with different main and attachment plate thickness |
| **Wang Guanglun, O. A. Pekau, Zhang Chuhan** and **Wang Shaomin** | 67 | Seismic fracture analysis of concrete gravity dams based on nonlinear fracture mechanics |
| **B. Alfredsson** and **M. Olsson** | 89 | Initiation and growth of standing contact fatigue cracks |
| | 107 | Calendar |


## NUMBERS 2–3


| | | |
|---|---|---|
| | 109 | Editorial |
| **Koji Otsuka** and **Hidehumi Date** | 111 | Fracture process zone in concrete tension specimen |
| **Christopher K. Y. Leung, Niell Elvin, Noah Olson, Theodore F. Morse** and **Yi-Fei He** | 133 | A novel distributed optical crack sensor for concrete structures |
| **Birgitte Friis Dela** and **Henrik Stang** | 149 | Two-dimensional analysis of crack formation around aggregates in high-shrinkage cement paste |
| **Marcel R. A. van Vliet** and **Jan G. M. van Mier** | 165 | Experimental investigation of size effect in concrete and sandstone under uniaxial tension |
| **G. V. Guinea, M. Elices** and **J. Planas** | 189 | Assessment of the tensile strength through size effect curves |
| **Xiaozhi Hu** and **Folker Wittmann** | 209 | Size effect on toughness induced by crack close to free surface |

| | | |
|---|---|---|
| **Eric N. Landis** and **Edwin N. Nagy** | 223 | Three-dimensional work of fracture for mortar in compression |
| **Norihiko Kurihara, Minoru Kunieda, Toshiro Kamada, Yuichi Uchida** and **Keitetsu Rokugo** | 235 | Tension softening diagrams and evaluation of properties of steel fiber reinforced concrete |
| **M. G. D. Geers, R. de Borst** and **R. H. J. Peerlings** | 247 | Damage and crack modeling in single-edge and double-edge notched concrete beams |
| **G. N. Wells** and **L. J. Sluys** | 263 | Application of embedded discontinuities for softening solids |
| **C. J. Pearce, A. Thavalingam, Z. Liao** and **N. Bićanić** | 283 | Computational aspects of the discontinuous deformation analysis framework for modelling concrete fracture |
| **Minoru Kunieda, Norihiko Kurihara, Yuichi Uchida** and **Keitetsu Rokugo** | 299 | Application of tension softening diagrams to evaluation of bond properties at concrete interfaces |
| **Victor C. Li, H. Horii, P. Kabele, T. Kanda** and **Y. M. Lim** | 317 | Repair and retrofit with engineered cementitious composites |
| **Koichi Maekawa** and **Xuehui An** | 335 | Shear failure and ductility of RC columns after yielding of main reinforcement |
| **H. Okamura** and **I. H. Kim** | 369 | Seismic performance check and size effect FEM analysis of reinforced concrete |
| | 391 | Calendar |


## NUMBER 4


| | | |
|---|---|---|
| **T. Fett, D. Munz** and **Y. Y. Yang** | 393 | Applicability of the extended Petroski–Achenbach weight function procedure to graded materials |
| **Joakim Schön, Tonny Nyman, Anders Blom** and **Hans Ansell** | 405 | Numerical and experimental investigation of a composite ENF-specimen |
| **S. T. Lie, Z. Zhao** and **S. H. Yan** | 435 | Two-dimensional and three-dimensional magnification factors, $M_k$, for non-load-carrying fillet welds cruciform joints |
| **T. Pardoen** and **F. Delannay** | 455 | A method for the metallographical measurement of the CTOD at cracking initiation and the role of reverse plasticity on unloading |

**Ba-Nghiep Nguyen, Patrick Onck** and **Erik van der Giessen** 467 Crack-tip constraint effects on creep fracture

**O. Akourri, M. Louah, A. Kifani, G. Gilgert** and **G. Pluvinage** 491 The effect of notch radius on fracture toughness $J_{Ic}$

507 Calendar

## NUMBER 5

509 Editorial

**Xi-Qiao Feng** and **Dietmar Gross** 511 On the coalescence of collinear cracks in quasi-brittle materials

**M. R. Hackworth** and **J. M. Henshaw** 525 A pressure vessel fracture mechanics study of the aluminum beverage can

**Y. B. Bayram** and **H. F. Nied** 541 Enriched finite element-penalty function method for modeling interface cracks with contact

**B. Ule, V. Leskovšek** and **B. Tuma** 559 Estimation of plain strain fracture toughness of AISI M2 steel from precracked round-bar specimens

**Sung-Ryong Kim** and **John A. Nairn** 573 Fracture mechanics analysis of coating/substrate systems Part I: Analysis of tensile and bending experiments

**Sung-Ryong Kim** and **John A. Nairn** 595 Fracture mechanics analysis of coating/substrate systems Part II: Experiments in bending

**D. P. Harvey II** and **R. J. Bonenberger Jr** 609 Detection of fatigue macrocracks in 1100 aluminum from thermomechanical data

621 EFM Reviewers

625 Calendar

## NUMBER 6

**V. Tvergaard** and **A. Needleman** 627 Analysis of the Charpy V-notch test for welds

**Kesavaram S. Gadi, Paul F. Joseph, Ningsheng Zhang** and **Ahmet C. Kaya** 645 Thermally induced logarithmic stress singularities in a composite wedge and other anomalies

**J. Z. Zhang** 665 A shear band decohesion model for small fatigue crack growth in an ultra-fine grain aluminium alloy

**Toshiro Matsumto, Masataka Tanaka** and **Ryo Obara** 683 Computation of stress intensity factors of interface cracks based on interaction energy release rates and BEM sensitivity analysis

**T. Lorriot** 703 Specimen loading determined by displacement measurement in instrumented Charpy impact test

I Calendar

V Contents of Volume 65

IX Author Index